

# **PROLOGUE: SELF-REGULATION IN DIFFERENT AGE GROUPS AND CONTEXTS**

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**Abstract:** The prologue introduces the articles included in the special issue and the rationale that brings them together. Specifically, the five articles are organized around the topic of self-regulation and self-regulated learning. The age range of the participants in the reported studies spans from childhood to older age and the contexts range from mother-child interactions in learning situations, metacognitive intervention for the improvement of self-monitoring during learning mathematics, student social interaction needs in special education to teachers' skills and emotional characteristics supporting adjustment to retirement.

**Keywords:** Learning, Metacognition, Positive psychology, Self-regulation, Teacher skills, Retirement

This special issue comprises five articles that originated from the 3rd Panhellenic Conference of the Psychological Society of Northern Greece that took place in Ioannina, Greece, in October 2015. A selection of papers presented at the conference was decided to be published after a peer review process in the Hellenic Journal of Psychology. The first set of papers was published as special section in issue 13(3) of 2016. The topic of the special section was "Well-being and beliefs in school settings" and included articles on student well-being (Brouzos, Vassilopoulos, & Boumpouli, 2016), teacher burnout (Kamtsios & Lolis, 2016), and students' perception of the relevance of personality traits as described by Thucydides (Αλεξόπουλος & Πρελορέντζος, 2016).

The second group of papers is included in this issue. The common thread that connects them is self-regulation as manifested in students' self-regulated learning (SRL), teachers' professional development and retirees' positive traits.

In the last 25 years, considerable progress has been made as regards the components and functioning of self-regulated learning (Pintrich, 2000; see Torrano

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& Gonzalez, 2004). Theorists in SRL tend to agree that the process of self-regulation refers to the persons' monitoring and control of their performance, cognition, and affect as well as their environment in order to achieve their goals (Efklides, 2011; Efklides, Niemivirta, & Yamauchi, 2002; Pintrich, 2000; Zimmerman, 2008). Selfregulated learning in academic settings is assumed to consist of domain-free skills (Pintrich, 2000), the application of which depends on person as well as task, situational and context-specific factors. Much of research on SRL focused on the teaching of strategies while less attention has been devoted to the interrelations between SRL and individual trait-like characteristics (Bartels, Magun-Jackson, & Kemp, 2009; Bidjerano & Dai, 2007; Hong & O'Neil, 2001; Papantoniou, Moraitou, Dinou, & Katsadima, 2013). According to Efklides (2011) and Winne (2004), the interactions between different components of SRL can be described either at a macro-level or at a micro-level. The level of functioning of SRL processes is important because metacognition, motivation, and affect at a macro-level are represented by relatively stable or trait-like person characteristics (e.g., metacognitive knowledge, achievement goal orientations, self-efficacy beliefs, etc; see also Pintrich, 2000) that function across tasks or situations. In other words, SRL is conceived of as domain-specific but at a generalized level (e.g., self-efficacy in mathematics, emotions raised in a specific course, etc.) rather than at the task-specific or micro-level. The macro-level, or "Person" level according to Efklides (2011), comprises cognitive, metacognitive, motivational, affective and volitional person characteristics. Efklides (2011) emphasizes the role of affective factors in SRL and the interrelations between person characteristics and between them and micro-level processes as well. Specifically, affect and motivation are assumed to interact with metacognition—metacognitive experiences (ME, such as metacognitive feelings and metacognitive judgments), metacognitive knowledge (MK) and metacognitive strategies (MS) (Efklides, 2008).

In this issue, the article by Gidalevich and Kramarski presents a study on students' metacognitive judgements while solving mathematical problems. The authors performed qualitative analysis of thinking-aloud protocols in the three phases of SRL (planning, monitoring and reflection; Zimmerman, 2000), while students solved a non-routine math problem. Although there already exist interventions oriented to metacognition in math problem solving (Mevarech & Kramarski, 2014; Tzohar-Rosen & Kramarski, 2013), only few studies examined the role of metacognitive judgements in mathematical problem solving. The article by Gidalevich and Kramarski focuses on the effect of an intervention program based on the IMPROVE model (Kramarski & Mevarech, 2003; Mevarech & Kramarski, 1997) but used metacognitive judgements rather than instructions for metacognitive skills. The findings suggest that students

in the intervention program achieved more correct solutions on the non-routine math problem than the control group and there were differences regarding statements related to SRL and metacognitive judgements in the various SRL phases, as well.

The second article of this special issue authored by Vlachou, Stavroussi, and Didaskalou is a case study of a student with intellectual disability. The authors present the structured program they applied for the cultivation of the social skills of the student and its evaluation. The intervention was based on the social problemsolving model (D’Zurilla, Nezu, & Maydeu-Olivares, 2004). The design and implementation of the intervention unfolded around four interrelated phases as in SRL, namely planning, acting, observing, and reflecting. The findings reveal that the student was receptive to the intervention and demonstrated improved performance in recognizing, defining and formulating a problem related to social/interpersonal situations as well as in generating solution/alternative solutions for resolving such problems. The authors discuss the implications of the study in regards the promotion of social inclusion of students with intellectual disabilities.

The third article of this issue by Kallia and Dermitzaki focuses on the assessment of maternal behaviors that support children’s self-regulated learning skills and cognitive performance in visual-spatial and verbal cognitive domains. Maternal supportive behaviors were examined by means of a structured observation form tapping mothers’ cognitive and metacognitive support, emotional-motivational support, and autonomy support. The inter-rater reliability of the structured observation tool was satisfactory. Use of the tool in situations in which mothers interacted with their children revealed a dynamic network of relationships between maternal scaffolding behaviors, children’s SRL skills and cognitive performance. The implications of the findings for promoting children’s SRL in different cognitive domains are discussed.

The importance of self-regulation is also discussed in the article by Φουτσιτζή, Παπαντωνίου, Μωραΐτου, and Πλακίτση. Because of the global changes in social, economic, and technological areas, educational systems need to equip students with knowledge but also with competencies for coping with life challenges (Iluz, Michalsky, & Kramarski, 2012). Key competencies, as defined by the Definition and Selection of Competencies Project (DeSeCo; OECD, 2002), which reflects the priorities of the Organization for Economic Cooperation and Development (OECD, 1997) and which serves a wide range of uses and users, are the following: (a) using tools interactively, (b) interacting in socially heterogeneous groups, and (c) acting autonomously.

Since an important condition for students’ progress is their teachers’ professional development (Borko, 2004), Iluz et al. (2012) transformed the DeSeCo (OECD, 2002) theoretical model from students’ competencies for life challenges to teachers’

professional context by developing the “Life Challenges Teacher Inventory”. The inventory is based on the DeSeCo Project’s (OECD, 1997, 2002) three-factor theoretical model of competencies as adapted to teachers’ professional development context. The article by Φουτσιτζή, Παπαντωνίου, Μωραΐτου, and Πλακίτση focuses on the examination of the psychometric properties of the Hellenic version of the three scales of the “Life Challenges Teacher Inventory”. Confirmatory factor analyses confirmed a slightly differentiated structure than the one suggested by Iluz et al. (2012). The internal consistency of the three scales was satisfactory. The implications of the present study for the assessment and promotion of teachers’ professional development are discussed.

Self-regulation, from an emotional point of view, is also important for adjustment to retirement. Retirement marks the transition to a different lifestyle than the one experienced by the person during the working life period. Retirement is conventionally associated with aging. It has been suggested that a series of sociopsychological factors can affect retirement adjustment and satisfaction. Two positive traits, namely gratitude and forgiveness have been found to promote subjective wellbeing and mental health in older adults (Ingersoll, Campbell, & Ha, 2008; Kerr, Donovan, & Pepping, 2016). The article by Παπαδοπούλου, Λυκίδου, Μωραΐτου, and Παπαντωνίου focuses on the relationship of gratitude and forgiveness with retirement adjustment. The study showed that gratitude was positively related to retirement satisfaction while an aspect of forgiveness, namely, time as facilitator of cognitive acceptance of negative situations, was negatively associated with adjustment to retirement. The implications of the findings for emotional regulation in the transition to retirement are discussed.

To conclude, the special issue comprises articles that highlight the complexity and multiple facets of self-regulation from childhood to older age. What is worth noting is that self-regulation involves not only competencies and skills, that are essential for successful individual and social development, but also self-awareness, motivation such as autonomy or emotions such as gratitude and forgiveness. These aspects of selfregulation underscore its central role in people’s lives and well-being, and the need for research that goes beyond the conventional conceptions of self-regulation as an individual phenomenon towards a conceptualization of self-regulation as embedded in social interaction and society as an integrated whole.

Prologue

IX

## REFERENCES

- Αλεξόπουλος, Δ. Σ., & Πρελορέντζος, Α. (2016). Χαρακτηριστικά προσωπικότητας κατά τον Θουκυδίδη: Ψυχομετρικές ιδιότητες της Κλίμακας Προδιαθεσιακών Τάσεων σε εφήβους. *HellenicJournalofPsychology*,13(3), 170-195.

- Bartels, J. M., Magun-Jackson, S., & Kemp, A. (2009). Volitional regulation and self-regulated learning: An examination of individual differences in approach-avoidance achievement motivation. *Electronic Journal of Research in Educational Psychology*, 7(2), 605-626.
- Bidjerano, T., & Dai, D. Y. (2007). The relationship between the big-five model of personality and self-regulated learning strategies. *Learning and Individual Differences*, 17, 69-81.
- Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher*, 33(8), 3-15.
- Brouzos, A., Vassilopoulos, S. P., & Boumpouli, C. (2016). Adolescents' subjective and psychological well-being: The role of meaning in life. *Hellenic Journal of Psychology*, 13(3), 153-169.
- D'Zurilla, T. J., Nezu, A. M., & Maydeu-Olivares, A. (2004). Social problem solving: Theory and assessment. In E. C. Chang, T. J. D'Zurilla, & L. J. Sanna (Eds.), *Social problem solving: Theory, research and training*. Washington, DC: American Psychological Association.
- Efklides, A. (2008). Metacognition: Defining its facets and levels of functioning in relation to self-regulation and co-regulation. *European Psychologist*, 13(4), 277-287.
- Efklides, A. (2011). Interactions of metacognition with motivation and affect in self-regulated learning: The MASRL model. *Educational Psychologist*, 46(1), 6-25.
- Efklides, A., Niemivirta, M., & Yamauchi, H. (2002). Introduction: Some issues on self-regulation to consider. *Psychologia: An International Journal of Psychology in the Orient*, 45, 207-210.
- Hong, E., & O'Neil, H. F. (2001). Construct validation of a trait self-regulation model. *International Journal of Psychology*, 36(3), 186-194.
- Iluz, S., Michalsky, T., & Kramarski, B. (2012). Developing and assessing the Life Challenges Teacher Inventory for teachers' professional growth. *Studies in Educational Evaluation*, 38, 44-54.
- Ingersoll-Dayton, B., Campbell, R., & Ha, J.-H. (2008). Enhancing forgiveness: A group intervention for the elderly. *Journal of Gerontological Social Work*, 52, 2-16.
- Kamtios, S., & Lolis, T. (2016). Investigating burnout in Greek teachers: Are there any teachers at risk? *Hellenic Journal of Psychology*, 13(3), 196-216.
- Kerr, S. L., Donovan, A. O., & Pepping, C.A. (2016). Can gratitude and kindness interventions enhance well-being in a clinical sample? *Journal of Happiness Studies*, 16, 17-36. doi.org/10.1007/s10902-013-9492-1
- Kramarski, B., & Mevarech, Z. R. (2003). Enhancing mathematical reasoning in the classroom: Effects of cooperative learning and metacognitive training. *American Educational Research Journal*, 40, 281-310. doi: 10.3102/00028312040001281
- Mevarech, Z. R., & Kramarski, B. (1997). IMPROVE: A multidimensional method for teaching mathematics in heterogeneous classrooms. *American Educational Research Journal*, 34, 365-394. doi: 10.3102/00028312034002365
- Mevarech, Z. R., & Kramarski, B. (2014). *Critical maths for innovative societies: The role of metacognitive pedagogies*. Paris, France: OECD. doi: 10.1787/9789264223561-en
- OECD (1997). *The definition and selection of key competencies*. Paris, France: Author.
- OECD (2002). *Definition and selection of competencies (DeSeCo): Theoretical and conceptual foundations (Strategy paper)*. Paris, France: Author.
- Papantoniou, G., Moraitou, D., Dinou, M., & Katsadima, E. (2013). Dispositional hope and action-state orientation: Their role in self-regulated learning. In A. Efklides & D. Moraitou

- (Eds.), *A positive psychology perspective on quality of life* (pp. 219-242). *Social Indicators Research Series*, 51. Dordrecht: Springer.
- Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 432-502). San Diego, CA: Academic.
- Torrano, F., & Gonzalez, M. C. (2004). Self-regulated learning: Current and future directions. *Electronic Journal of Research in Educational Psychology*, 2(1), 1-34.
- Tzohar-Rozen, M., & Kramarski, B. (2013). How can an affective self-regulation program promote mathematical literacy in young students? *Hellenic Journal of Psychology*, 10, 211-234.
- Winne, P. H. (2004). Students' calibration of knowledge and learning processes: Implications for designing powerful software learning environments. *Educational Research*, 41, 466-488.
- Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13-39). San Diego, CA: Academic Press.
- Zimmerman, B. J. (2008). Investigating self-regulation and motivation: Historical background, methodological developments and future prospects. *American Educational Research Journal*, 45, 166-183.